

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
7 December 2000 (07.12.2000)

PCT

(10) International Publication Number  
**WO 00/72863 A2**

- (51) International Patent Classification<sup>7</sup>: **A61K 38/00**
- (21) International Application Number: **PCT/GB00/02107**
- (22) International Filing Date: **1 June 2000 (01.06.2000)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:  
**9912733.4** **1 June 1999 (01.06.1999)** **GB**
- (71) Applicant (for all designated States except US): **SMITHKLINE BEECHAM PLC [GB/GB];** New Horizons Court, Brentford, Middlesex TW8 9EP (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **HERVIEU, Guillaume, Jean [FR/GB];** SmithKline Beecham Pharmaceuticals, New Frontiers Science Park South, Third Avenue, Harlow, Essex CM19 5AW (GB). **MEADOWS, Helen, Jane [GB/GB];** SmithKline Beecham Pharmaceuticals, New Frontiers Science Park South, Third Avenue, Harlow, Essex CM19 5AW (GB). **RANDALL, Andrew, David [GB/GB];** SmithKline Beecham Pharmaceuticals, New Frontiers Science Park South, Third Avenue, Harlow, Essex CM19 5AW (GB).
- (74) Agent: **CONNELL, Anthony, Christopher;** SmithKline Beecham, Two New Horizons Court, Brentford, Middlesex TW8 9EP (GB).
- (81) Designated States (national): **AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.**
- (84) Designated States (regional): **ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).**
- Published:**  
— Without international search report and to be republished upon receipt of that report.
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **NEW USE**

(57) Abstract: The use of h-TREK1 polypeptides and polynucleotides in the design of protocols for the treatment of epilepsy, sleep-related disorders, the induction of sleep, cognitive dysfunction/enhancement, attention deficit disorder, addiction, anxiety/phobia, dyskinesias including Parkinson's and Huntington's chorea, Cerebral palsy, incontinence, erectile dysfunction, alopecia, among others, and diagnostic assays for such conditions. Also disclosed are methods for producing such polypeptides by recombinant techniques.

WO 00/72863 A2